

The fossil remains here described were discovered by Mr. Darwin in the same bed of partly consolidated gravel at Punta Alta, Northern Patagonia, as that in which the lower jaws of the *Toxodon* and *Myiodon* were imbedded. The parts of the skeleton about to be described were discovered in their natural relative position, as represented at Pl. XX., indicating, Mr. Darwin observes, that the sublittoral formation in which they had been originally deposited had been subject to little disturbance.\* They include the cranium, nearly entire, with the teeth and part of the os hyoides; the seven cervical, eight of the dorsal, and five of the sacral vertebræ, the two scapulæ, left humerus, radius and ulna, two carpal bones, and an ungueal phalanx; both femora, the proximal extremities of the left tibia and fibula, and the left astragalus.

The principal parts of the cranium which are deficient are the anterior extremities of both the upper and lower jaws, the os frontis, æthmoid bone, and the whole upper part of the facial division of the skull; but sufficient remains to show that the general form of the skull resembled an elongated, slender, sub-compressed cone, commencing behind by a flattened vertical base, slightly expanding to the zygomatic region, and thence gradually contracting in all its dimensions to the anterior extremity.

The Cape Ant-eater (*Orycteropus*), of all Edentata, most nearly resembles the present fossil in the form of its cranium, and next in this comparison the great Armadillo (*Dasypus gigas*, Cuv.) may be cited: on the supposition, therefore, that the correspondence with the above existing Edentals observable in the parts of the fossil cranium which do exist, was carried out through those which are defective, the length of the skull of the Scelidothera must have been not less than two feet. If now the reader will turn to Pl. XX. he will see that this cranium is singularly small and slender in proportion to the rest of the skeleton, especially the bulky pelvis and femur, of which bones the latter has a length of seventeen inches, and a breadth of not less than nine inches; the astragalus, again, exceeds in bulk that of the largest Hippopotamus or Rhinoceros; yet the condition of the epiphyseal extremities of the long bones proves the present fossils to have belonged to an immature animal. Hence, although the Scelidothera, like most other Edentals, was of low stature, and, like the Megatherium, presented a disproportionate development of the hinder parts, it is probable, that, bulk for bulk, it equalled, when alive, the largest existing pachyderms, not proboscidian. There is no evidence that it possessed a tessellated osseous coat of mail.

I shall commence the description of the present skeleton with the cranium.

\* This beach is covered at spring tides; many parts of the skeleton were encrusted with recent *Flustra*, and small marine shells were lodged in the crevices between the bones.

The condyles of the occiput (See Pl. XXI. fig. 2.) are wide apart, sub-elliptic, very similar in position, form, and relative size to those in *Orycteropus*. The foramen occipitale is transversely oval, its plane slopes from above downwards and forwards at an angle of 40° with that of the occipital region of the skull. This region, as before stated, is vertical in position (see fig. 1, Pl. XXI.), of a sub-semicircular form, the breadth being nearly one-third more than the height; it is bounded above and laterally by a pretty regular curve; but the superior margin is not produced so far backwards as in *Orycteropus*. The occipital plane is bisected by a mesial vertical ridge; there is a less developed transverse curved inter-muscular crest which runs parallel with and about half an inch below the marginal ridge: the surface of the occipital plane on the interspaces of these ridges is irregularly pitted with the impression of the insertion of powerful muscles. The corresponding surface is smooth in the *Orycterope* and *Armadillos*; in the great extinct *Glossothera* it resembles in character that of the *Scelidothera*; but in the forward slope of the occipital plane the *Glossothera* differs in a marked degree from the present animal.

The upper surface of the cranium is smooth and regularly convex. The extent of the origin of the temporal muscles is defined by a slightly-raised broad commencement of a ridge, which, in the older animal, might become more developed. There is no trace of this ridge in the *Orycterope*; but it exists in the *Armadillos*, in which the teeth are of a denser texture, and better organized for mastication, and consequently are associated with better developed masticatory muscles. It will be subsequently shown that the *Scelidothera* resembles the *Armadillos* in so far as it possesses a greater proportion of the dense ivory to the external cæmentum in its teeth, than does the *Megatherium*; while it differs widely from the *Orycterope*, in the structure of its teeth. The teeth, however, are fewer in the *Scelidothera* than in any *Armadillo*, and relatively smaller than in most of the species of that family. Accordingly we find that the zygomatic arches are relatively weaker; and in this particular the *Scelidothera* corresponds with the *Orycterope*. The zygomatic process of the temporal commences posteriorly about an inch and a half from the occipital plane, its origin or base is extended forwards in a horizontal line fully four inches, where it terminates as usual in a thin concave edge, as shown on the right side in Pl. XXII. The free portion of the zygoma, continued forwards from the outer part of this edge, is a slender sub-compressed process, half an inch in the longest or vertical diameter, and less than three lines in the transverse; the extremity of this process is broken off; the opposite extremity of the malar portion of the zygoma is entire, and obtusely rounded. The bony arch may have been completed by the extension of the temporal process to the malar one, but the two parts undoubtedly were not connected together by so extensive a surface as in